

For each question, you need to find the answer and show your work. Each problem is worth 3 points: one for the correct answer and two for showing your work. For some problems, you may just need to write out how you know you have the correct answer.

1. What is the distance from -21 to its opposite on the number line?

For numbers 2-6, find an integer that describes each situation.

2. A weight gain of 2.5 lb per week for 9 consecutive weeks.
3. The *distance and direction* from a diving board 12 ft above the surface of the water to the bottom of the pool 18 ft below the surface.
4. The total gain if a team gains 6 yd on each of 5 consecutive plays in a football game.
5. The result of a diver ascending 20 ft and then diving down 41 ft.
6. The average weekly change for a weight loss of 44 lb over 11 weeks.

7. Matt Mitarnowski made a deposit of \$39 into his checking account. He wrote checks for \$12, \$57.50, and \$21.99. What was the net change to the balance in his account?

8. A football team gained 8 yards on a play, but was penalized 15 yards for personal foul after the play. What was the net result of yards for the play and penalty?

9. The hottest temperature recorded in the continental (lower 48) United States was 134°F at Greenland Ranch (Death Valley) in California in 1913. The lowest was 204°F colder than that, in Rogers Pass, Montana in 1954. What was the coldest temperature ever recorded in the continental United States?

Open-Ended Question: Answer the following question on a separate piece of paper. Make sure as you answer the open-ended question that you show your work AND explain how you know you are doing the correct work. YOU MUST EXPLAIN WHAT YOU ARE DOING!!!

Consider the list of integers ordered on a number line. What happens to the value of a negative integer as its absolute value increases? Practice and experiment on a number line, comparing the integers and their absolute value.